CULTURAL RESOURCES SURVEY OF THE WINNSBORO 230-69kV SUBSTATION, FAIRFIELD COUNTY, SOUTH CAROLINA

CHICORA RESEARCH CONTRIBUTION 543

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ABSTRACT

This study reports on an intensive cultural resources survey of approximately 8.29 acres consisting of three separate parcels (Parcel A: 2.864 acres; Parcel B: 3.946 acres; and Parcel C: 1.48 acre) to be used as a substation in Fairfield County, southwest of the town of Winnsboro, South Carolina. The work was conducted to assist Mr. Eric J. McClanahan of Lowcountry Ecological Services and their client Santee Cooper in complying with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The three lots are to be used by Santee Cooper for the extended construction of a substation. The topography is undulating throughout the 8.29 acres.

The proposed substation will require the clearing of the area, followed by construction of the proposed facility. These activities have the potential to affect archaeological and historical sites and this survey was conducted to identify and assess archaeological and historical sites that may be on or within sight of the substation lot. For this study, an area of potential effect (APE) 0.5 mile around the substation was assumed.

An investigation of ArchSite, which shows previously recorded architectural and archaeological sites, failed to show any sites in the 0.5 mile APE.

The archaeological survey of the substation lot incorporated shovel testing at 100-foot intervals along transects placed at 100-foot intervals. All shovel test fill was screened through ¼-inch mesh and the shovel tests were backfilled at the completion of the study. A total of 41 shovel tests were excavated along ten transect lines.

As a result of these investigations no sites were identified. This is likely due to the distance from a permanent water source and heavy erosion in the area.

A survey of public roads within a 0.5 mile of the proposed undertaking was conducted in an effort to identify any architectural sites over 50 years old that also retained their integrity. No such sites were found.

Finally, it is possible that archaeological remains may be encountered in the project area during clearing activities. Crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Eric J. McClanahan of Lowcountry Ecological Services. This firm is under contract with Santee Cooper to conduct environmental background investigations for a proposed substation. The work was conducted to assist Santee Cooper comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project consists of three tracts to the south and southwest of the existing 9 acre Winnsboro 69 kV Switching Station tract located at 3421 State Highway 213 in Fairfield County, South Carolina. The three proposed tracts account for 8.29 acres and all are situated southeast of an existing powerline corridor that ties into the extant substation.

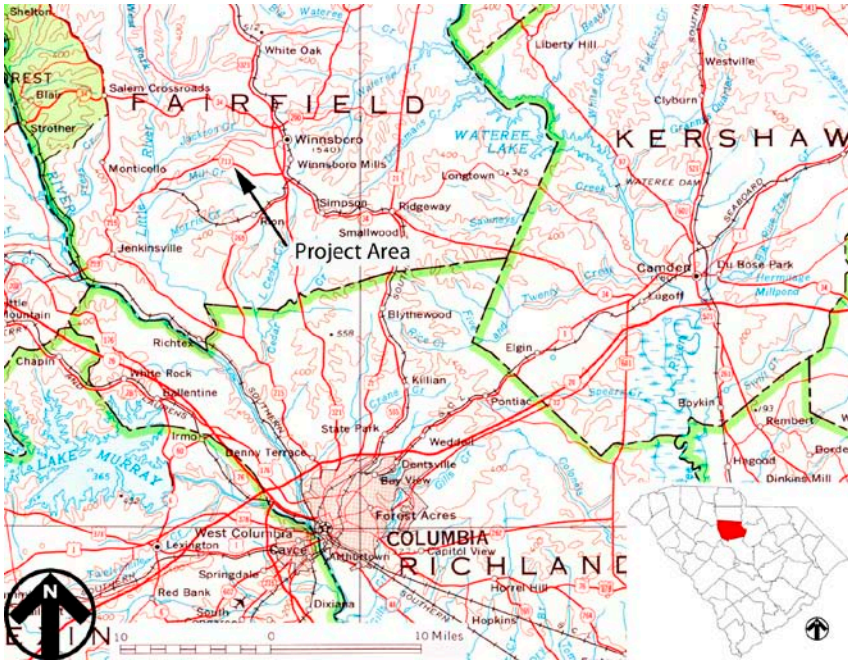

Figure 1. Location of the study tract in Fairfield County, southwest of Winnsboro (basemap is State of South Carolina 1:500,000).

The proposed tract will nearly double the size of the existing substation and will involve landscape alteration that includes clearing, grubbing, grading, possible addition of fill, establishing a gravel working surface, and construction of the substation facilities. These activities will damage or destroy any archaeological resources that may be present in the study area.

Construction and maintenance of the transmission line and substation may also have an impact on historic resources in the project area. The project will not directly affect any historic structures (since none are located in the survey tract), but the completed facility may detract from the visual integrity of historic properties, creating what many consider discordant surroundings. As a result, this architectural survey uses an area of potential effect (APE) about 0.5 mile radius around the proposed survey corridor. It is important, however, to recognize that there is an existing substation that already affects the viewshed.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this portion of Fairfield County.

We were requested by Mr. Eric J. McClanahan of Lowcountry Ecological Services to conduct a cultural resources survey for the project on November 30, 2011 and an agreement to perform the studies was signed on December 5.

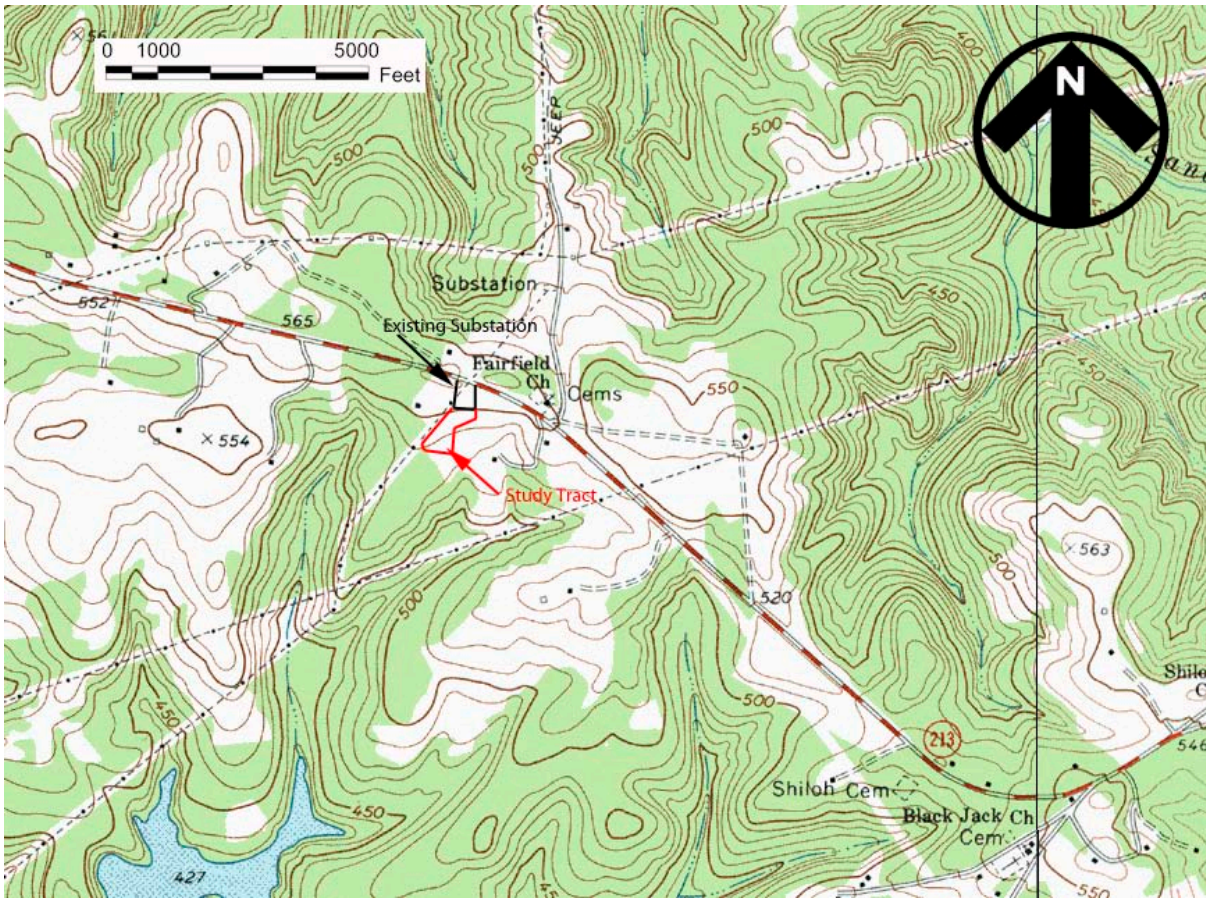

Figure 2. Study tract (basemap is USGS Rion 1969)

These investigations incorporated a review of ArchSite to see if any previously identified architectural or archaeological resources were in the 0.5 mile APE. No site were found.

While no comprehensive architectural survey has been completed for Fairfield County, Winnsboro itself has been surveyed in 1981-1982. In addition, the Central Midlands surveyed various areas around the county, also during the mid-1970s through early 1980s.

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted on December 5, 2011 by Ms. Nicole Southerland and Mr. Dennis Forrest under the direction of Dr. Michael Trinkley.

The architectural survey of the APE, designed to identify any structures over 50 years in age that retain their integrity and were potentially eligible for the National Register of Historic Places, failed to identify any structures.

Report production was conducted at Chicora's laboratories in Columbia, South Carolina from December 5 and 6, 2011. The only photographic materials associated with this project are digital images, which are not archival and will be retained for 90 days.

NATURAL ENVIRONMENT

Physiographic Province

The project area is situated in the southwestern quadrant of Fairfield County on a south facing ridge that runs northwest-southeast and is bisected by SC 213. To the south are several unnamed drainages of Mill Creek that drains west to the Little River (Figure 2).

Fairfield County is situated in the approximate center of South Carolina. It is bounded by Chester County to the north, Lancaster and Kershaw counties to the east, Union and Newberry counties to the west, and Richland County to the South. Wateree Lake separates Fairfield County from Lancaster County and part of Kershaw County. The Broad River separates Fairfield from Union and Newberry counties, and part of Richland County.

Figure 3. View of the topography in the study tract.

Elevations in Fairfield County range from slightly less than 200 feet at the confluence of the Broad and Little Rivers to about 625 feet in the upper part of the part. Ridges have elevations from about 350 to 625 feet. In the survey area the topography slopes to the south and elevations range from about 560 feet above mean sea level (AMSL) at SC 213 to about 535 AMSL at the southern edge of the study tract.

Most of Fairfield County is referred to as the Piedmont, although about 2,000 acres at the southeast corner of the county is a part of the Coastal Plain known as the Sand Hills. The Piedmont and Coastal Plain are separated from one another by an irregular line, known as the Fall Line, that extends north from the vicinity of Columbia and runs west of US 21 to Blythewood. From Blythewood the Fall Line continues southeast, entering Kershaw County at the confluence of Twentyfive Mile Creek and Rice Creek.

The land in this portion of Fairfield County ranges from nearly level to steep, but most areas are gently sloping to moderately steep. Like elsewhere in the Piedmont, the drainages form a dendritic pattern and throughout the Piedmont the terrain has been extensively dissected and degraded.

Geology and Soils

Most of the rocks of the Piedmont are gneiss and schist, with some marble and quartzite (Hasselton 1974). Some less intensively metamorphosed rocks, such as slate, occur along the eastern part of the province from southern Virginia into Georgia. This area, called the Slate Belt, is characterized by slightly lower ground with wider river valleys. Consequently, the Slate

Belt has been favored for reservoir sites (Johnson 1970), as well as prehistoric occupation (see Coe 1964).

In Fairfield County many of the Piedmont soils, such as Cecil-Pacolet-Appling, are formed in residuum of granite, gneiss, and schist. Other soils such as the Wilkes-Winnsboro-Mecklenburg Association are formed in residuum of diorite, gabbro, hornblende gneiss, and hornblende schist. These are occasionally cut by acidic mineral dikes. The primary crystalline rocks in the study tract vicinity are granitoid gneiss with a few areas of intrusive granite (Hardee 1982:3).

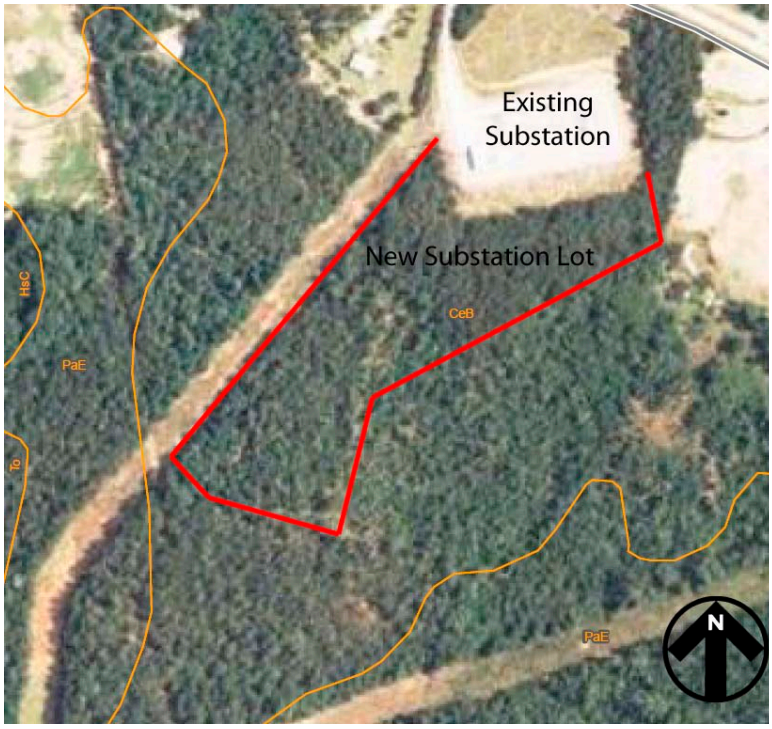

Figure 4. Soils in the study tract. CeB = Cecil sand loam, 2-6% slopes; HsC = Hiwassee sandy loam, 6-10% slopes; PaE = Pacolet sandy loam, 10-15% slopes; To = Toccoa loam.

The soils in the study tract consist entirely of Cecil sandy loams, 2-6% slopes. These are deep, well drained soils found on medium and broad irregularly shaped ridgetops. The typical soil profile includes an Ap horizon about 0.4 foot in depth of yellowish red (5YR 4/6) sandy clay loam over a B1 horizon about 0.3 foot in depth that consists of red (2.5YR 4/6) sandy clay loam. The B21t horizon is found to a depth of 1.2 feet and consists of red (2.5YR 4/8) clay.

The earliest aerials examined for this project date only to 1994 and the vegetative cover has not changed in the past 17 years. Nevertheless, Stanley Trimble's erosion study of the Southern Piedmont identifies Fairfield as part of his Region III — the Cotton Plantation Area. This area has exhibited high antebellum erosion land use with postbellum continuation and Trimble estimates that much of Fairfield County has lost over a foot of soil through erosion in the nineteenth and early twentieth centuries (Trimble 1974:3).

In fact, the 1934 South Carolina Erosion Survey by M.W. Lowry found that this portion of Richland County exhibited severe sheet erosion with occasional gullies (Lowry 1934).

As erosive as cotton farming was, today's silvacultural practices are often not significantly better for the land. One study has estimated that while logging may cause the loss of only 0.36 tons of soil per acre per year in the Piedmont, nearly 40 tons are lost from logging roads and nearly 10 tons are lost from skid trails. Mechanical site preparation adds an additional loss of 6.7 tons per acre per year (U.S. Department of Agriculture 1980:25).

In 1843 Edmund Ruffin commented on Fairfield noting that the area was "red, hilly, &c of good quality." He explained that, "the culture is among the best, & the proprietors among the most successful in the state," yet in spite of this, "the great defect of tillage here, as everywhere in S.C. is the planting all the land, & resting none, until it is worn down so low as to require turning out for a long time" (Mathew 1992:279).

Earlier, Mills was no so uniformly

complimentary, noting that the soils in the district ranged from "the best to the worst that is found in the upper country" (Mills 1826:537). In particular he observed the erosive potential of rains on the soils: "the uplands are often of so uneven a surface as to be much injured by heavy rains, when in a state of cultivation" (Mills 1826:537-538).

Climate

Elevation, latitude, and distance from the coast work together to affect the climate of South Carolina, including the Piedmont. In addition, the more westerly mountains block or moderate many of the cold air masses that flow across the state from west to east. Even the very cold air masses which cross the mountains are warmed somewhat by compression before they descend on the Piedmont.

Consequently, the climate of Fairfield County is temperate. The winters are relatively mild and the summers warm and humid. Rainfall in the amount of about 46 inches is adequate, although less than in some neighboring counties. About 27 inches of rain occur during the growing season, with periods of drought not uncommon during the summer months. As Hilliard illustrates, these droughts tended to be localized and tended to occur several years in a row, increasing the hardship on those attempting to recover from the previous year's crop failure (Hilliard 1984:16). Perhaps the best wide-scale example of this was the drought of 1845, which caused a series of very serious grain and food shortages throughout the state.

The average growing season is about 232 days, although early freezes in the fall and late frosts in the spring can reduce this period by as much as 30 or more days (Hardee 1982). Consequently, most cotton planting, for example, did not take place until early May, avoiding the possibility that a late frost would damage the young seedlings.

Floristics

Piedmont forests generally belong to the Oak-Hickory Formation as established by Braun (1950). The potential natural vegetation of the project area is the Oak-Hickory-Pine forest, composed of medium tall to tall forests of broadlead deciduous and needleleaf evergreen trees (Küchler 1964). The major components of this ecosystem include hickory, shortleaf pine, loblolly pine, white oak, and post oak.

Figure 5. Vegetation typical of the project area.

While the Sandhill vegetation tends to be dominated by xeric stages, the Piedmont contains more mesic soils; pines and mixed hardwoods can be common, dominated by loblolly pines, cedars, southern red oaks, and even pignut and mockernut hickories. In these mesic woods the understory includes dogwoods, sassafras, blackgum, and persimmon (Berry 1980: 103, 114-115).

The site area the existing transmission line is in an area that has been cleared, so only small areas of understory can be seen. The remainder of the survey area is a mixed pine and hardwood forest.

PREHISTORIC AND HISTORIC OVERVIEW

Previous Research

Relatively little research has been done in Fairfield County. A total of 17 of 54 projects were performed in the Sumter National Forest (Derting et al. 1991), while an additional 17 projects were highway related. Together these two agencies account for nearly 63% of the work for the county.

Overviews for South Carolina's prehistory, while of differing lengths and complexity, are available in virtually every compliance report prepared. There are, in addition, some "classic" sources well worth attention, such as Joffre Coe's *Formative Cultures* (Coe 1964), as well as some newer overviews (such as Sassaman et al. 1990 and Goodyear and Hanson 1989). Figure 6 offers a generalized view of South Carolina's cultural periods.

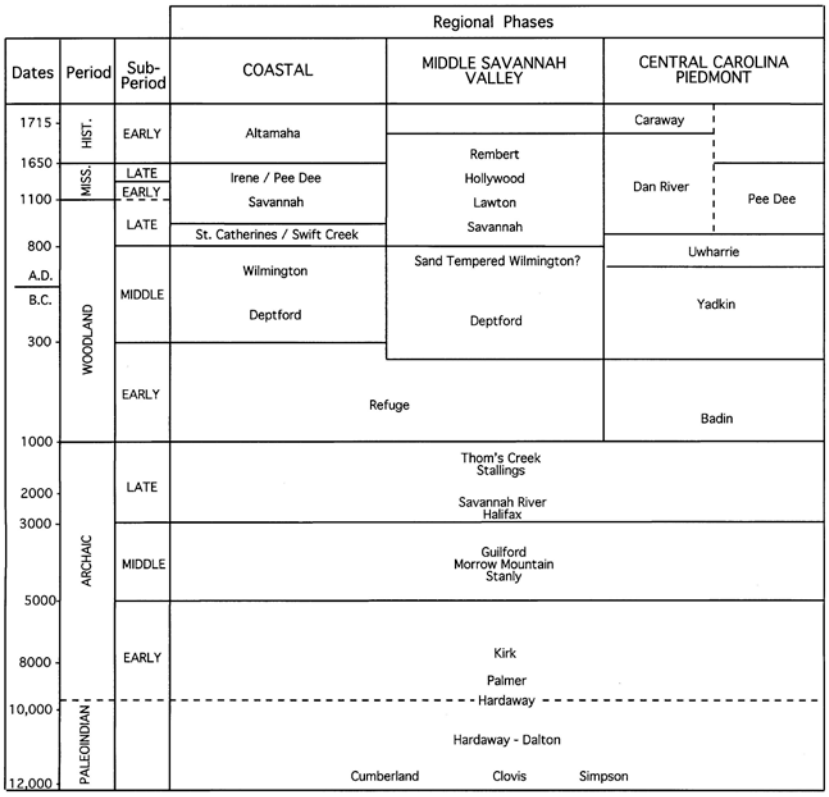

Figure 6. Generalized cultural sequence for South Carolina.

Paleoindian Period

The Paleoindian Period, most commonly dated from about 12,000 to 10,000 B.P., is evidenced by basally thinned, side-notch projectile points; fluted, lanceolate projectile points, side scrapers, end scrapers; and drills (Coe 1964; Michie 1977; Williams 1965). Oliver (1981, 1985) has proposed to extend the Paleoindian dating in the North Carolina Piedmont to perhaps as early as 14,000 B.P., incorporating the Hardaway Side-Notched and Palmer Corner-Notched types, usually accepted as Early Archaic, as representatives of the terminal phase. This view, verbally suggested by Coe for a number of years, has considerable technological appeal.[1]

[1] While never discussed by Coe at length, he did observe that many of the Hardaway points, especially from the lowest contexts, had facial fluting or thinning which, "in cases where the side-notches or basal portions were missing, . . . could be mistaken for fluted points of the Paleo-Indian period" (Coe 1964:64). While not an especially strong statement, it does reveal the formation of the concept. Further insight is offered by Ward's (1983:63) all too brief comments on the more recent investigations at the Hardaway site (see also Daniel 1992).

Oliver suggests a continuity from the Hardaway Blade through the Hardaway-Dalton to the Hardaway Side-Notched, eventually to the Palmer Side-Notched (Oliver 1985:199-200). While convincingly argued, this approach is not universally accepted.

The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented toward the exploitation of now extinct mega-fauna" (Michie 1977:124). Survey data for Paleoindian tools, most notably fluted points, is somewhat dated, but has been summarized by Charles and Michie 1992). They reveal a widespread distribution across the state (see also Anderson 1992b:Figure 5.1) with at least several concentrations relating to intensity of collector activity. What is clear is that points are found fairly far removed from the origin of the raw material. Charles and Miche suggest that this may "imply a geographically extensive settlement system" (Charles and Michie 1992:247).

Although data are sparse, one of the more attractive theories that explains the widespread distribution of Paleoindian sites is the model tracking the replacement of a high technology forager (or HTF) adaptation by a "progressively more generalized band/microband foraging adaption" accompanied by increasingly distinct regional traditions (perhaps reflecting movement either along or perhaps even between river drainages) (Anderson 1992b:46).

Distinctive projectile points include lanceolates such as Clovis, Dalton, perhaps the Hardaway, and Big Sandy (Coe 1964; Phelps 1983; Oliver 1985). A temporal sequence of Paleoindian projectile points was proposed by Williams (1965:24-51), but according to Phelps (1983:18) there is little stratigraphic or chronometric evidence for it. While this is certainly true, a number of authors, such as Anderson (1992a) and Oliver (1985) have assembled impressive data sets. We are inclined to believe that while often not conclusively proven by stratigraphic excavations (and such proof may be an unreasonable expectation), there is a large body of circumstantial evidence. The weight of this evidence tends to provide considerable support.

Unfortunately, relatively little is known about Paleoindian subsistence strategies, settlement systems, or social organization (see, however, Anderson 1992b for an excellent overview and synthesis of what is known). Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Archaic Period

The Archaic Period, which dates from 10,000 to 3,000 B.P.[2], does not form a sharp break with the Paleoindian Period, but is a slow transition characterized by a modern climate and

[2] The terminal point for the Archaic is no clearer than that for the Paleoindian and many researchers suggest a terminal date of 4,000 B.P. rather than 3,000 B.P. There is also the question of whether ceramics, such as the fiber-tempered Stallings ware, will be included as Archaic, or will be included with the Woodland. Oliver, for example, argues that the inclusion of ceramics with Late Archaic attributes "complicates and confuses classification and interpretation needlessly" (Oliver 1981:20). He comments that according to the original definition of the Archaic, it "represents a preceramic horizon" and that "the presence of ceramics provides a convenient marker for separation of the Archaic and Woodland periods (Oliver 1981:21). Others would counter that such an approach ignores cultural continuity and forces an artificial, and perhaps unrealistic, separation. Sassaman and Anderson (1994:38-44), for example, include Stallings and Thom's Creek wares in their discussion of "Late Archaic Pottery." While this issue has been of considerable importance along the Carolina and Georgia coasts, it has never affected the Piedmont, which seems to have embraced pottery far later, well into the conventional Woodland period. The importance of the issue in the Sandhills, unfortunately, is not well known.

an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited animal. Archaic period assemblages, exemplified by corner-notched and broad-stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

Many researchers have reported data suggestive of a noticeable population increase from the Paleoindian into the Early Archaic. This has tentatively been associated with a greater emphasis on foraging. Diagnostic Early Archaic artifacts include the Kirk Corner Notched point. As previously discussed, Palmer points may be included with either the Paleoindian or Archaic period, depending on theoretical perspective. As the climate became hotter and drier than the previous Paleoindian period, resulting in vegetational changes, it also affected settlement patterning as evidenced by a long-term Kirk phase midden deposit at the Hardaway site (Coe 1964:60). This is believed to have been the result of a change in subsistence strategies.

Settlements during the Early Archaic suggest the presence of a few very large, and apparently intensively occupied, sites which can best be considered base camps. Hardaway might be one such site. In addition, there were numerous small sites which produce only a few artifacts — these are the "network of tracks" mentioned by Ward (1983:65). The base camps produce a wide range of artifact types and raw materials which has suggested to many researchers long-term, perhaps seasonal or multi-seasonal, occupation. In contrast, the smaller sites are thought of as special purpose or foraging sites (see Ward 1983:67).

Middle Archaic (8,000 to 6,000 B.P.) diagnostic artifacts include Morrow Mountain, Guilford, Stanly and Halifax projectile points. Much of our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work by Jeff Chapman and his students in the Little Tennessee River Valley (for a general overview see Chapman 1977, 1985a, 1985b). There is good evidence that Middle Archaic lithic technologies changed dramatically. End scrapers, at times associated with Paleoindian traditions, are discontinued, raw materials tend to reflect the greater use of locally available materials, and mortars are initially introduced. Associated with these technological changes there seem to also be some significant cultural modifications. Prepared burials begin to more commonly occur and storage pits are identified. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and the Carolinas, where axes, choppers, and ground and polished stone tools are very rare.

Among the most common of all Middle Woodland artifacts is the Morrow Mountain Stemmed projectile point. Originally divided into two varieties by Coe (1964:37,43) based primarily on the size of the blade and the stem. Morrow Mountain I points had relatively small triangular blades with short, pointed stems. Morrow Mountain II points had longer, narrower blades with long, tapered stems. Coe suggested a temporal sequence from Morrow Mountain I to Morrow Mountain II. While this has been rejected by some archaeologists, who suggest that the differences are entirely related to the life-stage of the point, the debate is far from settled and Coe has considerable support for his scenario.

The Morrow Mountain point is also important in our discussions since it represents a departure from the Carolina Stemmed Tradition. Coe has suggested that the groups responsible for the Middle Archaic Morrow Mountain (and the later Guilford points) were intrusive ("without any background" in Coe's words) into the North Carolina Piedmont, from the west, and were contemporaneous with the groups producing Stanly points (Coe 1964:122-123; see also Phelps 1983:23). Phelps, building on Coe, refers to the Morrow Mountain and Guilford as the "Western Intrusive horizon." Sassaman (1995) has proposed a scenario for the Morrow Mountain groups which would support this west-to-east time-transgressive process. Abbott and his colleagues, perhaps unaware of Sassaman's data,

dismiss the concept, commenting that the shear distribution and number of these points "makes this position wholly untenable" (Abbott et al. 1995:9).

The controversy surrounding Morrow Mountain also includes its posited date range. Coe (1964:123) did not expect the Morrow Mountain to predate 6500 B.P., yet more recent research in Tennessee reveals a date range of about 7500 to 6500 B.P. Sassaman and Anderson (1994:24) observe that the South Carolina dates have never matched the antiquity of their more western counterparts and suggest continuation to perhaps as late as 5500 B.P. In fact they suggest that even later dates are possible since it can often be difficult to separate Morrow Mountain and Guilford points.

A recently defined point is the MALA. The term is an acronym standing for Middle Archaic and Late Archaic, the strata in which these points were first encountered at the Pen Point site (38BR383) in Barnwell County, South Carolina (Sassaman 1985). These stemmed and notched lanceolate points were originally found in a context suggesting a single-episode event with variation not based on temporal variation. The original discussion was explicitly worded to avoid application of a typology, although as Sassaman and Anderson (1994:27) note, the "type" has spread into more common usage. There are possible connections with both the Halifax points of North Carolina and the Benton points of the middle Tennessee River valley, while the "heartland" for the MALA appears confined to the lower middle Coastal Plain of South Carolina.

The available information has resulted in a variety of competing settlement models. Some argue for increased sedentism and a reduction of mobility (see Goodyear et al. 1979:111). Ward argues that the most appropriate model is one which includes relatively stable and sedentary hunters and gatherers "primarily adapted to the varied and rich resource base offered by the major alluvial valleys" (Ward 1983:69). While he recognizes the presence of "inter-riverine" sites, he discounts explanations which focus on seasonal rounds, suggesting "alternative explanations . . . [including] a wide range of adaptive responses." Most importantly, he notes that:

> the seasonal transhumance model and the sedentary model are opposite ends of a continuum, and in all likelihood variations on these two themes probably existed in different regions at different times throughout the Archaic period (Ward 1983:69).

Others suggest increased mobility during the Archaic (see Cable 1982). Sassaman (1983) has suggested that the Morrow Mountain phase people had a great deal of residential mobility, based on the variety of environmental zones they are found in and the lack of site diversity. The high level of mobility, coupled with the rapid replacement of these points, may help explain the seemingly large numbers of sites with Middle Archaic assemblages. Curiously, the later Guilford phase sites are not as widely distributed, perhaps suggesting that only certain micro-environments were used (cf. Ward [1983:68-69] who would likely reject the notion that substantially different environmental zones are, in fact, represented).

Recently Abbott et al. argue for a combination of these models, noting that the almost certain increase in population levels probably resulted in a contraction of local territories. With small territories there would have been significantly greater pressure to successfully exploit the limited resources by more frequent movement of camps. They discount the idea that these territories could have been exploited from a single base camp without horticultural technology. Abbott and his colleagues conclude, "increased residential mobility under such conditions may in fact represent a common stage in the development of sedentism" (Abbott et al. 1995:9).

From excavations at a Sandhills site in Chesterfield County, South Carolina, Gunn and his colleague (Gunn and Wilson 1993) offer an alternative model for Middle Archaic settlement. He accepts that the uplands were desiccated from global warming, but rather than limiting

occupation, this environmental change made the area more attractive for residential base camps. Gunn and Wilson suggest that the open, or fringe, habitat of the upland margins would have been attractive to a wide variety of plant and animal species.

The Late Archaic, usually dated from 6,000 to 3,000 or 4,000 B.P., is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued to intensively exploit the uplands much like earlier Archaic groups with, the bulk of our data for this period coming from the Uwharrie region in North Carolina.

One of the more debated issues of the Late Archaic is the typology of the Savannah River Stemmed and its various diminutive forms. Oliver, refining Coe's (1964) original Savannah River Stemmed type and a small variant from Gaston (South 1959:153-157), developed a complete sequence of stemmed points that decrease uniformly in size through time (Oliver 1981, 1985). Specifically, he sees the progression from Savannah River Stemmed to Small Savannah River Stemmed to Gypsy Stemmed to Swannanoa from about 5000 B.P. to about 1,500 B.P. He also notes that the latter two forms are associated with Woodland pottery.

This reconstruction is still debated with a number of archaeologists expressing concern with what they see as typological overlap and ambiguity. They point to a dearth of radiocarbon dates and good excavation contexts at the same time they express concern with the application of this typology outside the North Carolina Piedmont (see, for a synopsis, Sassaman and Anderson 1990:158-162, 1994:35).

In addition to the presence of Savannah River points, the Late Archaic also witnessed the introduction of steatite vessels (see Coe 1964:112-113; Sassaman 1993), polished and pecked stone artifacts, and grinding stones. Some also include the introduction of fiber-tempered pottery about 4000 B.P. in the Late Archaic (for a discussion see Sassaman and Anderson 1994:38-44). This innovation is of special importance along the Georgia and South Carolina coasts, but seems to have had only minimal impact in the uplands of South or North Carolina.

There is evidence that during the Late Archaic the climate began to approximate modern climatic conditions. Rainfall increased resulting in a more lush vegetation pattern. The pollen record indicates an increase in pine which reduced the oak-hickory nut masts which previously were so widespread. This change probably affected settlement patterning since nut masts were now more isolated and concentrated. From research in the Savannah River valley near Aiken, South Carolina, Sassaman has found considerable diversity in Late Archaic site types with sites occurring in virtually every upland environmental zone. He suggests that this more complex settlement pattern evolved from an increasingly complex socio-economic system. While it is unlikely that this model can be simply transferred to the Sandhills of South Carolina without an extensive review of site data and micro-environmental data, it does demonstrate one approach to understanding the transition from Archaic to Woodland.

Woodland Period

As previously discussed, there are those who see the Woodland beginning with the introduction of pottery. Under this scenario the Early Woodland may begin as early as 4,500 B.P. and continued to about 2,300 B.P. Diagnostics would include the small variety of the Late Archaic Savannah River Stemmed point (Oliver 1985) and pottery of the Stallings and Thoms Creek series. These sand tempered Thoms Creek wares are decorated using punctations, jab-and-drag, and incised designs (Trinkley 1976). Also potentially included are Refuge wares, also characterized by sandy paste, but often having only a plain or dentate-stamped surface (Waring 1968). Others would have the Woodland beginning about 3,000 B.P. and perhaps as late as 2,500 B.P. with the introduction of pottery which is cord-marked or fabric-impressed and suggestive of influences from northern cultures.

There remains, in South Carolina,

considerable ambiguity regarding the pottery series found in the Sandhills and their association with coastal plain and piedmont types. The earliest pottery found at many sites may be called either Deptford or Yadkin, depending on the research or their inclination at any given moment.

The Deptford phase, which dates from 3050 to 1350 B.P., is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Inner Coastal Plain/Sand Hills, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98; see also Sassaman 1993 for similar data recovered from 38AK157).

Further to the north and west, in the Piedmont, the Early Woodland is marked by a pottery type defined by Coe (1964:27-29) as Badin.[3] This pottery is identified as having very fine sand in the paste with an occasional pebble. Coe identified cord-marked, fabric-marked, net-impressed, and plain surface finishes. Beyond this pottery little is known about the makers of the Badin wares and relatively few of these sherds are reported from South Carolina sites.

Somewhat more information is available for the Middle Woodland, typically given the range of about 2,300 B.P. to 1,200 B.P. In the Piedmont and even into the Sand Hills, the dominant Middle Woodland ceramic type is typically identified as the Yadkin series. Characterized by a crushed quartz temper the pottery includes surface treatments of cord-marked, fabric-marked, and a very few linear check-stamped sherds (Coe 1964:30-32). It is regrettable that several of the seemingly "best" Yadkin sites, such as the Trestle site (31An19) explored by Peter Cooper (Ward 1983:72-73), have never been published.

Yadkin ceramics are associated with medium-sized triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least 1650 B.P. coexisted with this Triangular Tradition. The Yadkin in South Carolina has been best explored by research at 38SU83 in Sumter County (Blanton et al. 1986) and at 38FL249 in Florence County (Trinkley et al. 1993)

In some respects the Late Woodland (1,200 B.P. to 400 B.P.) may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500-700 years. From the vantage point of the Middle Savannah Valley Sassaman and his colleagues note that, "the Late Woodland is difficult to delineate typologically from its antecedent or from the subsequent Mississippian period" (Sassaman et al. 1990:14). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

Historic Synopsis

Early settlers in Fairfield, around 1745, appear to be emigrants from Virginia and North Carolina (Mills 1826:536), although Scotch-Irish settlers from Pennsylvania were also among early inhabitants. There were even some French Huguenot families settled in the southern part of the county, primarily along waterways (Hardee

[3] The ceramics suggest clear regional differences during the Woodland which seem to only be magnified during the later phases. Ward (1983:71), for example, notes that there "marked distinctions" between the pottery from the Buggs Island and Gaston Reservoirs and that from the south-central Piedmont.

Figure 7. Portion of Mills' *Atlas* showing Fairfield District in 1826. There are no settlements identified in the study area.

1982:1).

Fairfield District was established from Camden District in 1785. This district incorporated all of modern Fairfield, as well as a portion of Richland to the south and Kershaw to the east. The Kershaw territory was lost in 1791 to the creation of Kershaw District and the Richland territory was lost in 1913 (Long 1997:100-102)

In 1826, Mills reported that the Fairfield District lands were,

> Well adapted to the culture of the small grains, all of which grow well. Cotton, of the short staple, is cultivated to the greatest advantage (Mills 1826:538).

Mills also observed that the population was just beginning to increase. In 1800 there were 10,343 inhabitants, of which 2,224 (21.5%) were enslaved African American. In two decades the total population had increased by nearly two-thirds to 17,174. Enslaved African Americans, however, comprised 45% of the total (or 7,748) and the white population had fallen to 9,378 (Mills 1826:546).

Mills' prediction that the county would continue to grow was accurate only if the African American population is included. By the eve of the Civil War in 1860, Fairfield's white population had declined to 6,373, while African Americans accounted for 15,534 or over 70% of the total.

In 1860 fully 45% of the acreage in farms was improved and the farms had a value of $6,314,020, ranking Fairfield's farms as sixth in value out of the state's 30 districts. Fairfield ranked fourth in cotton production, producing 19,770 bales of cotton. The district's focus on cotton is seen by its rank of 14th in corn production – clearly the bulk of the planters' efforts were being devoted to the cash crop.

While the Civil War had an extraordinary financial impact on Fairfield County, destroying the area's agricultural base and eliminating the use of enslaved labor, there were no battles of substance fought in the immediate area. Sherman's troops took several routes from Columbia northward. Figure 8 shows several of

Figure 8. Route and camps of Sherman's 2nd Division, 20th Corps through Fairfield District (adapted from *Atlas to Accompany the Official Records*, Plate 86-4).

the Federal camps in the vicinity of Winnsboro in late February 1865. Although it is likely that Union troops were in the vicinity of the study tract, it doesn't appear that there were any camps in the immediate vicinity.

By 1880 the region was still slowly recovering, but 25,729 bales of cotton were produced on Fairfield's 2,851 farms. This was an impressive showing considering only 25% of the county's farm acreage was improved (107,741 acres out of 428,985). In 1884 it was explained that it cost $40 to produce each bale of cotton. There were 300 cotton gins in the county, each of which was capable of turning out about 12 bales of ginned cotton a day. Male farm laborers were paid $8 a month, females were paid $4 a month (News and Courier 1884:38).

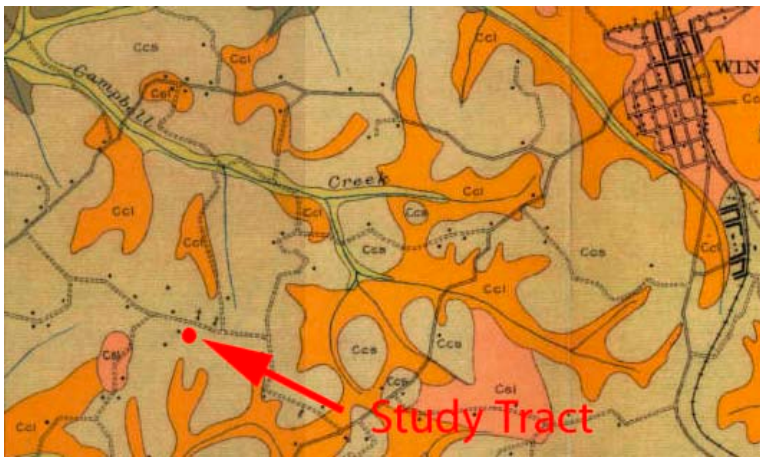

Figure 9. Fairfield County Soils Map, 1911, showing the study area.

Besides agriculture, Fairfield boasted 18 flour and grist mills and five lumber mills. There were no foundries, turpentine stills, or other industries in the county.

By 1907 Fairfield produced 24,305 bales of cotton on 75,918 acres. The only crop even close to the acreage devoted to cotton was corn, grown on 40,446 acres and producing 309,180 bushels (Watson 1907:574).

Between 1900 and 1920 the total number of farms statewide operated by tenants increased from 94,884 to 124,231. The number began dropping by 1930 when there were only 102,768 farms operated by tenants. Nevertheless, the proportion of farms operated by tenants remained relatively stable – 64.5% in 1920 and 65.1% in 1930. The value of the land and buildings, however, declined precipitously from $813,484,200 in 1920 to $379,190,630 in 1930. In addition, while only 21% of the farms were mortgaged in 1920, by 1930 a third of all farms were mortgaged.

In Fairfield County the proportion of tenancy was significantly higher in 1920 – 73.8%. By 1930 the proportion declined to 66.2%, although this remained above the statewide average.

The 1930 census also gives a view of conditions in Fairfield County. There were only 30 tractors on the 2,276 farms and 44 telephones. Only 93 of the farms had water piped into their homes and only 49 had electricity. Most of the farms – 58% – were located on unimproved

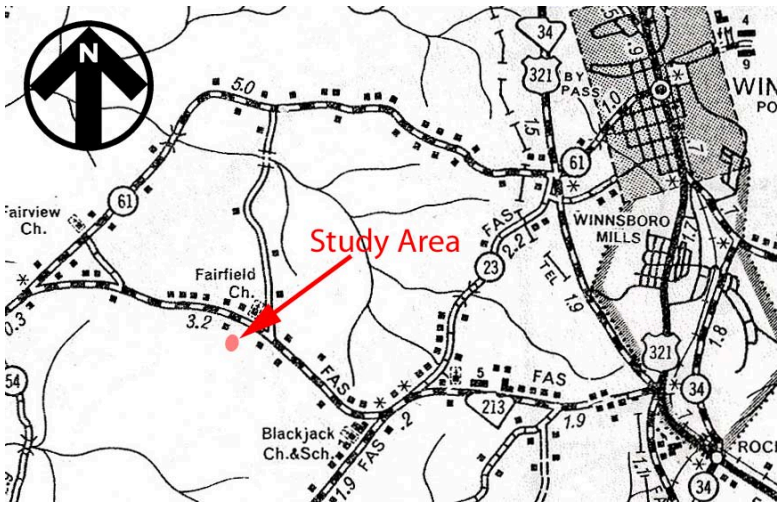

Figure 10. General Highway and Transportation Map of Fairfield County from 1951.

dirt roads.

A soils map from 1911 shows a dramatically different road network than is present today, making the location of the study tract problematical. Figure 9, however, shows an approximation of the study area. Several structures are in the general area and likely represent small farmsteads or possibly tenant farms.

The next available map dates from 1951 and shows the area essentially as it is today. Farms are still shown on this map, and Fairfield Church is clearly identified.

RESEARCH METHODS AND FINDINGS

Archaeological Field Methods and Findings

The initially proposed field techniques involved the placement of shovel tests at 100-foot intervals along transects placed at 100-foot intervals at the west edge of the project area along the existing transmission line.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1.0 foot or until subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

Should sites (defined by the presence of three or more artifacts from either surface survey or shovel tests within a 50 feet area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

Analysis of collections would follow professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains.

A total of ten transects were placed along the existing transmission line at the western end of the project area, from north to south. Shovel

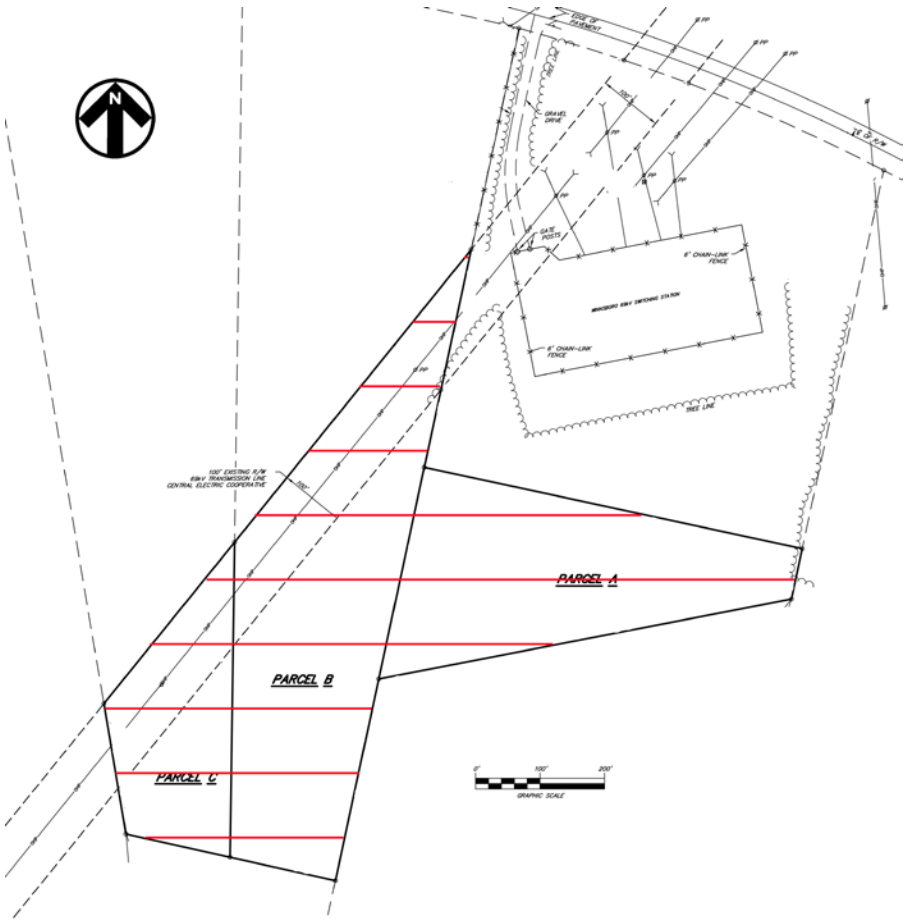

Figure 11. Project area shown with transects.

tests were excavated to the east. A total of 41 shovel tests were excavated within the project area.

Nevertheless, the archaeological survey of the tract failed to identify any remains. This is likely due to the distance from a permanent water source and the heavy erosion in the area.

Figure 12. Shovel testing in the project area.

Architectural Survey

As previously discussed, we elected to use a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects that appeared to have been constructed before about 1950. Typical of such projects, this survey recorded only those that have retained "some measure of its historic integrity" (Vivian n.d.:5) and that were visible from public roads.

For each identified resource we would complete a Statewide Survey Site Form and at least two representative photographs would be taken. Permanent control numbers would be assigned by the Survey Staff of the S.C. Department of Archives and History at the conclusion of the study. The Site Forms for the resources identified during this study would be submitted to the S.C. Department of Archives and History.

Site Evaluation and Findings

Archaeological sites would be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

> the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and

Figure 13. View of the existing Winnsboro Substation.

distinguishable entity whose components may lack individual distinction; or

d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site, providing a framework for the evaluative process;
- identification of the important research questions the site might be able to address, given the data sets and the context;
- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and
- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process may be summarized, but we try to focus on an archaeological site's ability to address significant research topics within the context of its available data sets.

The survey, however, failed to identify any structures that were in the APE that contain enough integrity to be eligible for the National Register of Historic Places.

CONCLUSIONS

This study involved the examination of approximately 8.29 acres of land for a substation in Fairfield County. This work, conducted for Mr. Eric J. McClanahan of Lowcountry Ecological Services examined archaeological sites and cultural resources found on the proposed project tract and is intended to assist Santee Cooper in complying with their historic preservation responsibilities.

As a result of this investigation no sites were identified. This is likely the result of the distance from a permanent water source and heavy erosion.

A survey of public roads within 0.5 mile revealed no structures that retain the integrity for the National Register of Historic Places.

It is possible that archaeological remains may be encountered during construction activities. As always, contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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